

LOADING AND BRACING (TL & LTL) IN CLOSED OR OPEN TOP VAN TRAILERS OF PALLETIZED COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS T53 SERIES CONTAINER

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THIS DOCUMENT INCLUDES OUTLOADING PROCEDURES FOR CONVENTIONAL TYPE TRAILERS AND FOR TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES AS APPROVED BY THE BUREAU OF EXPLOSIVES, ASSOCIATION OF AMERICAN RAILROADS. CAUTION: THE PROCEDURES SHOWN HEREIN, FOR BOTH TYPES OF TRAILERS, ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS; NOT FOR TRAILER-ON-FLAT-CAR MOVEMENTS.

DO NOT SCALE

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GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE FOR THE T53 COMPLETE ROUND CONTAINER ASSEMBLED ON THE 40" X 48" 4-WAY ENTRY PALLET. SEE THE PICTORIAL VIEW ON PAGE 3 FOR SIZE AND WEIGHT. REFER TO U.S. ARMY AMC DRAWING 19-48-4079/2-20PM1002 FOR UNITIZATION PROCEDURES FOR THE T53 SERIES CYLINDRICAL METAL CONTAINERS.
- C. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR SHIPMENTS IN CONVENTIONAL TYPE VAN TRAILERS, AND FOR SHIPMENTS IN VAN TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES (CROSS MEMBERS AND WALL MEMBERS) AND APPLY TO TRAILERS HAVING WOOD, OR WOOD AND METAL, OR ALL METAL FLOORS. VAN TRAILERS WHICH ARE 40'-0" LONG BY 7'-6" TO 8'-2" WIDE (INSIDE DIMENSION) HAVE BEEN SHOWN. HOWEVER, THE PROCEDURES ARE ALSO APPLICABLE FOR TRAILERS WHICH ARE EIGHTY-NINE INCHES (89") THRU NINETY-NINE INCHES (99") IN WIDTH AND FOR TRAILERS OF OTHER LENGTHS FROM THE SHORTEST TO THE LONGEST AVAILABLE (REF: 24' TO 53'), AND FOR STRAIGHT TRUCK VANS. THE LOADING AND BRACING PROCEDURES SPECIFIED HEREIN ARE ALSO ADEQUATE (CONFIGURATION WISE AND STRENGTH WISE) FOR LOADS IN SHORTER OR LONGER VANS AND IN NARROWER OR WIDER VANS THAN SHOWN. THE SPECIFIED BRACING IS ADEQUATE FOR LOADS WEIGHING UP TO AND INCLUDING THE MAXIMUM WEIGHTS PERMITTED BY LAW.
- D. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES ARE LIMITED TO HIGHWAY MOVEMENTS ONLY. THE HEIGHT REQUIREMENTS SPECIFIED WITHIN THIS DRAWING FOR THE INSTALLATION OF CROSS MEMBERS ARE IDENTICAL WITH THOSE RECOMMENDED BY THE BUREAU OF EXPLOSIVES PAMPHLET 6C, AND APPENDICES THERETO. CAUTION: TRAILERS EQUIPPED WITH WALL MEMBERS WHICH DO NOT MEET THE LOCATION REQUIREMENTS MUST NOT BE USED.
1. PALLET UNITS SHOULD BE LOADED TIGHTLY AGAINST EACH OTHER AND/OR AGAINST INSTALLED CROSS MEMBERS. VOIDS LENGTHWISE WITHIN A LOAD SHOULD BE MINIMUM. CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE WALL MEMBER LOCKING HOLE SPACING PERMITS. EACH CROSS MEMBER WILL BE INSTALLED WITH EACH END ATTACHED AS NEARLY AS POSSIBLE IN A "MATED" POSITION (AT EQUAL HEIGHTS, AND AT EQUAL DISTANCES FROM THE END OF THE TRAILER).
 2. CROSS MEMBERS IN EMPTY TRAILERS AND THOSE UNUSED IN LOADED TRAILERS MUST BE "SECURED" FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.
 3. ONE (1) CROSS MEMBER WILL BE REQUIRED FOR EACH 10,000 POUNDS OF LADING AND SHOULD NOT BE RELIED UPON TO RETAIN A GREATER WEIGHT. CROSS MEMBERS WILL NOT BE DOUBLED, THAT IS, TWO CROSS MEMBERS AT THE SAME HEIGHT LOCATION WILL NOT BE PLACED SIDE-BY-SIDE.
- E. SELECTION OF A VEHICLE TO BE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 29, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.
- F. THE GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY. THE TOTAL WEIGHT OF THE LADING, OF THE DUNNAGE, OF THE TRACTOR AND OF THE SEMI-TRAILER CARRYING THE LADING MUST NOT EXCEED THE MAXIMUM GROSS WEIGHT ALLOWED FOR THE STATE OR STATES THRU WHICH THE LOAD IS TO BE TRANSPORTED BY MOTOR CARRIER. LIKEWISE, THE GROSS WEIGHT ON A SINGLE OR TENDEM AXLE MUST NOT EXCEED THE MAXIMUM ALLOWABLE WEIGHT. IF THERE IS ANY DOUBT AS TO WHETHER THE TOTAL GROSS WEIGHT OR AXLE WEIGHT EXCEEDS THE MAXIMUM ALLOWED, WEIGHT SHOULD BE VERIFIED BY ACTUALLY WEIGHING THE LOADED VEHICLE.

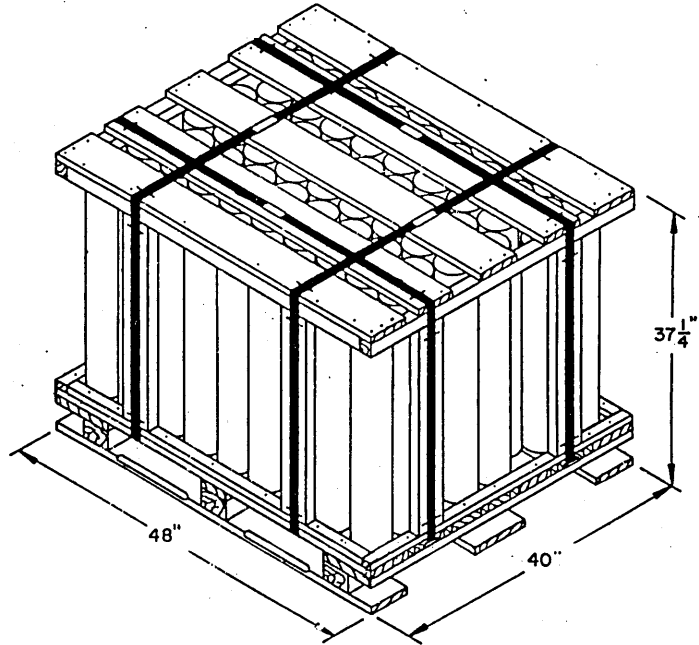
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MATERIAL SPECIFICATIONS

- LUMBER -----: SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.
- NAILS -----: FED SPEC FF-N-105, COMMON.
- STRAPPING, STEEL -: FED SPEC QQ-S-781; CLASS 1, TYPE I OR IV, HEAVY DUTY, FINISH A, B (GRADE 2), OR C.
- SEAL, STRAP ----: FED SPEC QQ-S-781; TYPE D, STYLE I, II, OR IV, CLASS H, FINISH A, B (GRADE 2), OR C.
- PLYWOOD -----: GROUP B, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D, FED SPEC NN-P-530. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- WIRE -----: FED SPEC QQ-W-461.
- TYGARD -----: POLYESTER YARN, 1,100 POUNDS/INCH OF WIDTH STRENGTH.
- ADHESIVE -----: TYGARD ADHESIVE.

(GENERAL NOTES CONTINUED)

- G. NOTICE: A SHIPMENT WILL BE POSITIONED IN THE TRAILER CONSISTENT WITH STATE WEIGHT LAWS. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. COMBINATIONS OF THE OUTLOADING PROCEDURES SPECIFIED MAY BE USED; HOWEVER, THE APPROVED METHODS SHOWN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEMS.
- H. THE "LOAD AS SHOWN" FOR MOST OF THE FULL LOADS DEPICTED HEREIN IS BASED ON AN APPROXIMATE LADING WEIGHT OF 42,000 POUNDS. THE SPECIFIED BLOCKING AND BRACING FOR THE FULL LOADS IS ADEQUATE FOR THE RETENTION OF HEAVIER LOADS, IF IT IS DESIRED TO INCREASE THE LADING WEIGHT.
- J. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH PALLET UNITS OF COMPLETE ROUNDS, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.
- K. SOME LOADS ARE SHOWN IN TRAILERS HAVING ROUNDED CORNERS AT THE FORWARD END. IF THE CONVENTIONAL VAN TRAILER BEING USED IS EQUIPPED WITH A SQUARE FRONT OR WITH AN INSTALLED BULKHEAD, OMIT THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED (1), AND POSITION THE PALLET UNITS DIRECTLY AGAINST THE FORWARD PORTION OF THE TRAILER; OMIT CROSS MEMBERS IN THE FORWARD END OF MECHANICAL VAN TRAILERS HAVING A SQUARE FRONT.
- L. PALLET UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF ITEMS CAN BE TRANSPORTED. REFER TO U.S. ARMY AMC DRAWING 19-48-4079/2-20PM1002 FOR LESS THAN FULL PALLET UNITS. FOR "SHIPMENT OF LEFTOVER CONTAINERS", SEE THE DETAIL AND SPECIAL NOTES ON PAGE 16.
- M. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF ONE (1) SEAL WITH TWO (2) PAIR OF NOTCHES WILL BE USED TO SEAL THE JOINT WHEN A NOTCH-TYPE SEALER IS BEING USED. A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL WILL BE USED TO SEAL THE JOINT WHEN A CRIMP-TYPE SEALER IS BEING USED. REFER TO THE "STRAP JOINT A" AND "STRAP JOINT B" DETAILS ON PAGE 3 FOR GUIDANCE.
- N. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- O. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. THE NAILING PATTERN WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL DOES NOT PENETRATE INTO OR NEAR A CRACK BETWEEN FLOOR BOARDS. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- P. POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING DUNNAGE ASSEMBLIES WHICH ARE TO BE USED IN THE DELINEATED TRAILER LOADS SHOWN THROUGHOUT THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIED NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS. STAPLES WHICH ARE 2-1/2" OR LESS IN LENGTH SHOULD BE IN ACCORDANCE WITH FEDERAL SPECIFICATION FF-N-105 AS NEARLY AS PRACTICABLE. STAPLES WHICH ARE LONGER THAN 2-1/2" WILL BE A COMMERCIAL GRADE, OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENCO PRODUCTS INCORPORATED. NOTE: STAPLES WILL NOT BE SUBSTITUTED FOR NAILS IN ANY LOAD RESTRAINING FLOOR DUNNAGE APPLICATION.
- Q. PORTIONS OF THE TRAILERS, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- R. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHODS.
- S. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454KG.



PALLET UNIT

CONTAINER ----- 70 EACH @ 30 LBS (APPROX)
 CUBE ----- 41.4 CUBIC FEET (APPROX)
 GROSS WEIGHT ----- 2,248 LBS (APPROX)



ONE SEAL WITH
TWO PAIR OF
NOTCHES.

STRAP JOINT A

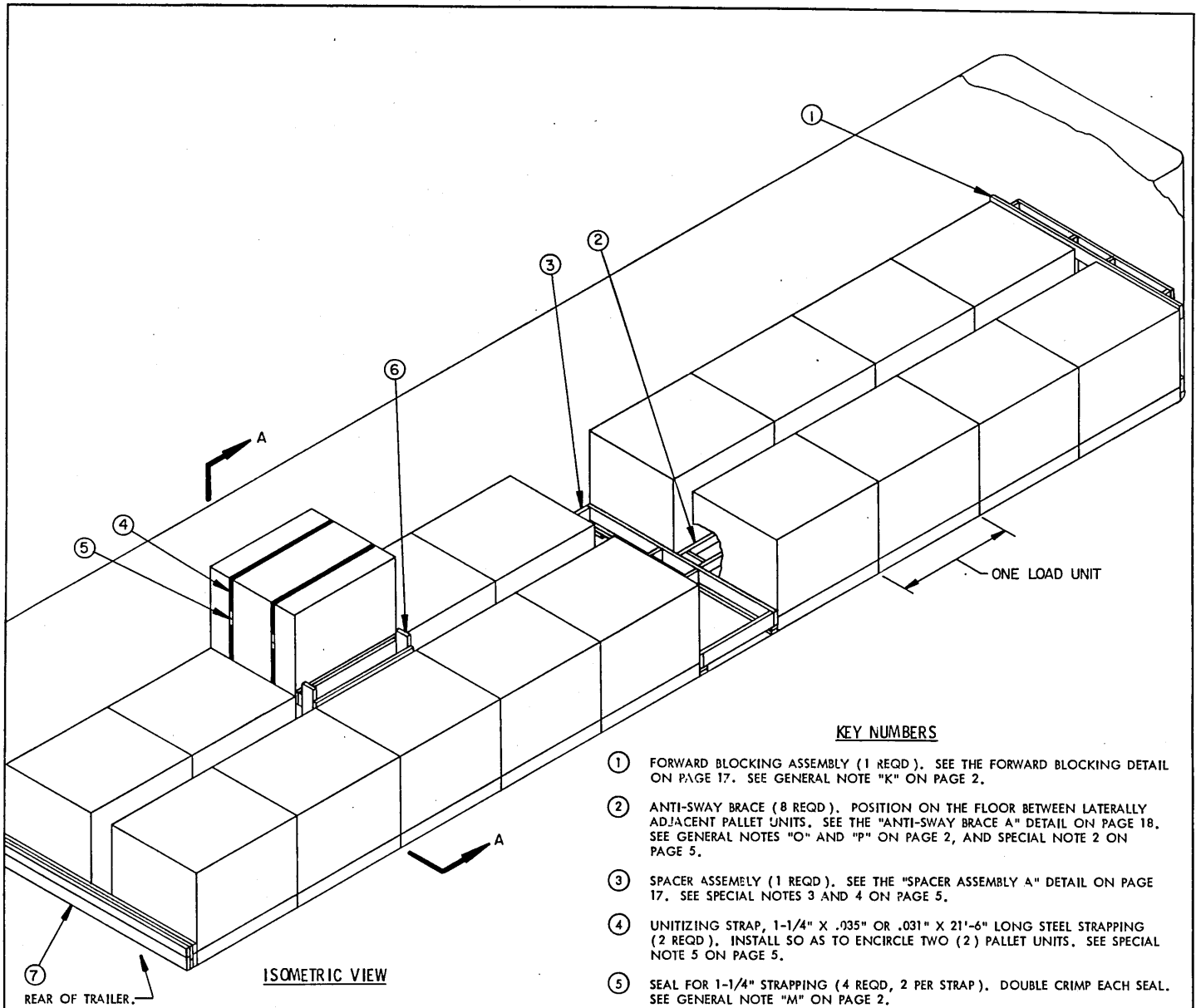
METHOD OF SECURING A
STRAP JOINT WHEN USING
A NOTCH-TYPE SEALER.



TWO SEALS, BUTTED
TOGETHER, WITH
TWO PAIR OF CRIMPS
EACH SEAL.

STRAP JOINT B

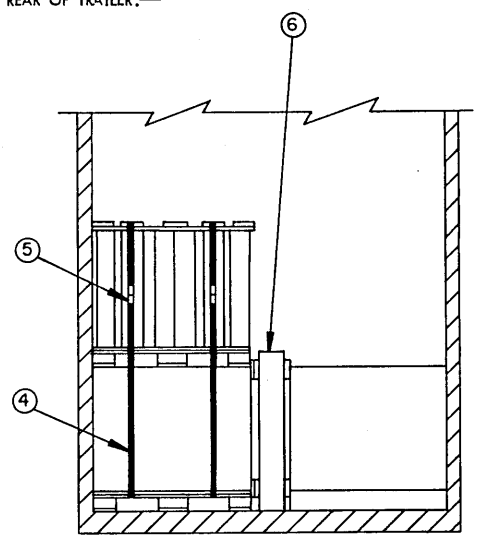
METHOD OF SECURING A
STRAP JOINT WHEN USING
A CRIMP-TYPE SEALER.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE FORWARD BLOCKING DETAIL ON PAGE 17. SEE GENERAL NOTE "K" ON PAGE 2.
- ② ANTI-SWAY BRACE (8 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 18. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTE 2 ON PAGE 5.
- ③ SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 17. SEE SPECIAL NOTES 3 AND 4 ON PAGE 5.
- ④ UNITIZING STRAP, 1-1/4" X .035" OR .031" X 21'-6" LONG STEEL STRAPPING (2 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) PALLET UNITS. SEE SPECIAL NOTE 5 ON PAGE 5.
- ⑤ SEAL FOR 1-1/4" STRAPPING (4 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑥ CRIB FILL (1 REQD). SEE THE "CRIB FILL ASSEMBLY A" DETAIL ON PAGE 20, AND SPECIAL NOTE 6 ON PAGE 5.
- ⑦ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY C" DETAIL ON PAGE 19. SEE SPECIAL NOTE 7 ON PAGE 5.



SECTION A-A

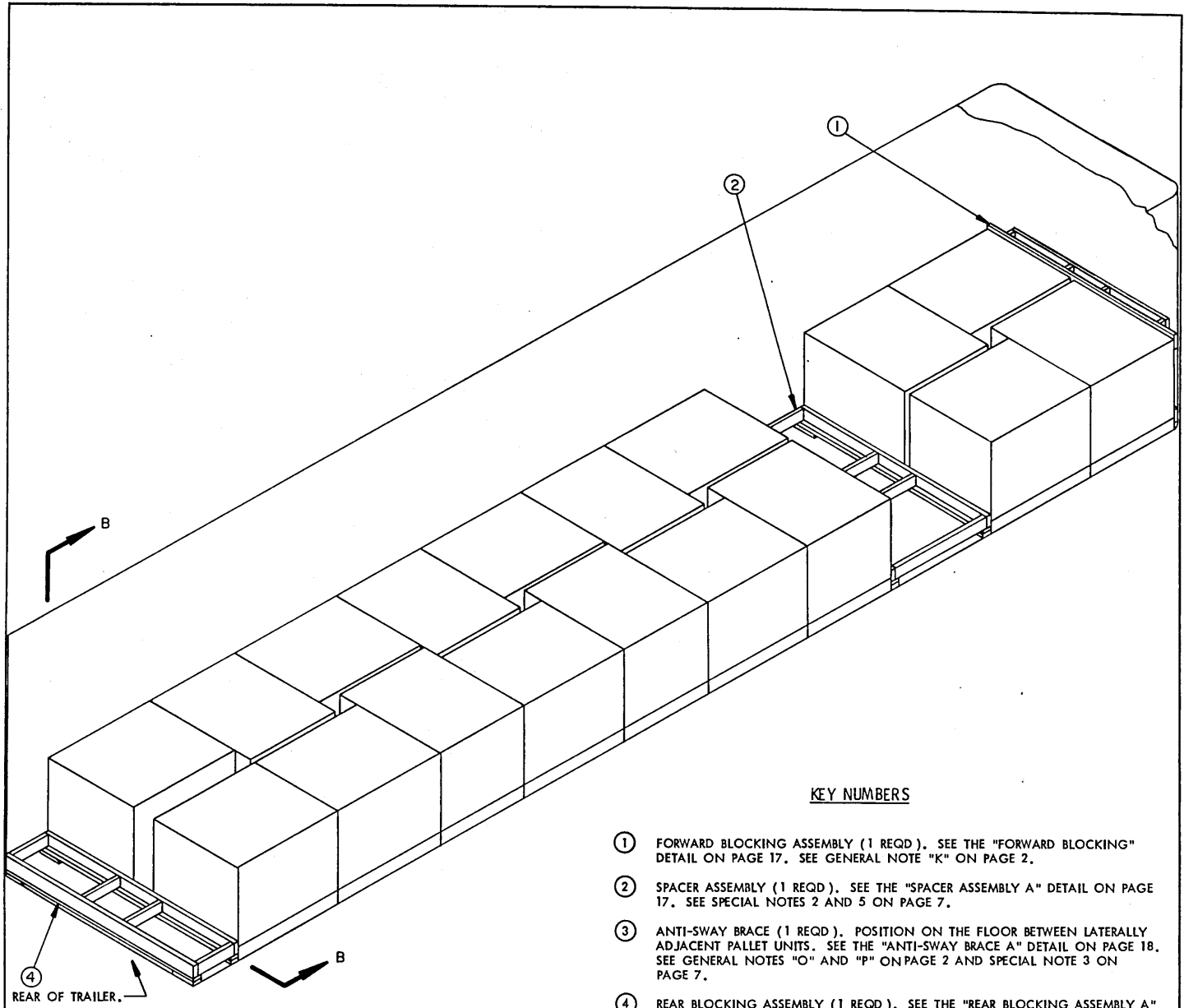
SPECIAL NOTES:

1. A 19-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TYPE TRAILER. TRAILERS OF OTHER DIMENSIONS CAN BE USED. SEE SPECIAL NOTE 6.
2. ANTI-SWAY BRACES, SHOWN AS PIECE MARKED ②, IN THE LOAD ON PAGE 4 ARE TO BE POSITIONED BETWEEN ALL Laterally ADJACENT PALLET UNITS. IF A TRAILER WHICH IS WIDER THAN 7'-6" IS TO BE LOADED, OR IF SPACE PERMITS, ANTI-SWAY BRACE "B" DETAILED ON PAGE 20, MAY BE USED IN LIEU OF PIECE MARKED ②.
3. SPACER ASSEMBLY "A" SHOWN AS PIECE MARKED ③ IN THE LOAD ON PAGE 4 CAN BE USED IN PLACE OF TWO OMITTED PALLET UNITS, OR FOR THE PURPOSE OF PROVIDING FOR PROPER WEIGHT DISTRIBUTION, AND IS SHOWN AS TYPICAL ONLY. IF THE TRAILER TO BE LOADED IS LONGER THAN 40' THE LOCATION OF THE ASSEMBLY, AND/OR THE STRUT LENGTHS, MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
4. SPACER ASSEMBLY "B", SHOWN AS PIECE MARKED ③ IN THE LOAD ON PAGE 8, CAN ALSO BE USED FOR THE OMISSION OF ONE (1) PALLET UNIT IN THE DEPICTED LOAD. SEE SPECIAL NOTE 3 ON PAGE 9 FOR INSTALLATION GUIDANCE.
5. THE STACK UNITIZING STRAPS, SHOWN AS PIECE MARKED ④, WILL BE INSTALLED TO SECURE AN UNSUPPORTED PALLET UNIT IN THE SECOND LAYER TO A CORRESPONDING UNIT IN THE FIRST LAYER, EXCEPT AT THE VERY REAR OF THE LOAD. PALLET UNITS WILL NOT BE POSITIONED ON TOP OF THE REARMOST LOAD UNIT.
6. THE CRIB FILL, PIECE MARKED ⑥, IS USED AS LATERAL BRACING TO PREVENT TIPPING OF 2-HIGH PALLET STACKS. WHEN TRAILERS MORE THAN 7'-6" WIDE ARE BEING LOADED, CRIB FILL "B" DETAILED ON PAGE 21, WILL BE USED IN LIEU OF PIECE MARKED ⑥.
7. IF THE VOID AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR MEASURES 1-1/2" OR LESS REAR BLOCKING IS NOT REQUIRED. IF THE VOID AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE "REAR BLOCKING ASSEMBLY C" AS SHOWN. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY A" DETAILED ON PAGE 19.
8. REFER TO GENERAL NOTE "L" ON PAGE 2 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.
9. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.
10. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 22 AND 23 FOR GUIDANCE. THE NAILED HEADER METHOD IS SHOWN ON PAGE 23 AND THE TYGARD METHOD IS SHOWN ON PAGE 22. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	8	4
2" X 4"	133	89
2" X 6"	97	97
NAILS	NO. REQD	POUNDS
6d (2")	16	NIL
10d (3")	258	4
STEEL STRAPPING, 1-1/4" ----- 43' REQD ----- 6 LBS		
SEALS FOR 1-1/4" STRAPPING ----- 4 REQD ----- NIL		

LOAD AS SHOWN

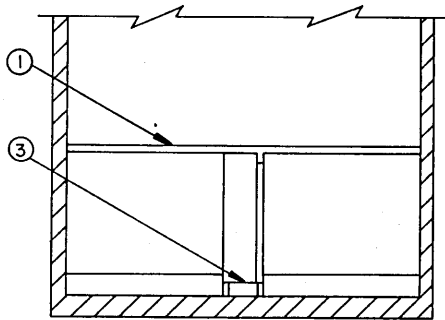
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	19	42,712 LBS
DUNNAGE		390 LBS
TOTAL WEIGHT		43,102 LBS



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING" DETAIL ON PAGE 17. SEE GENERAL NOTE "K" ON PAGE 2.
- ② SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 17. SEE SPECIAL NOTES 2 AND 5 ON PAGE 7.
- ③ ANTI-SWAY BRACE (1 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 18. SEE GENERAL NOTES "O" AND "P" ON PAGE 2 AND SPECIAL NOTE 3 ON PAGE 7.
- ④ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 19. SEE SPECIAL NOTE 4 ON PAGE 7.



SECTION B-B

SPECIAL NOTES:

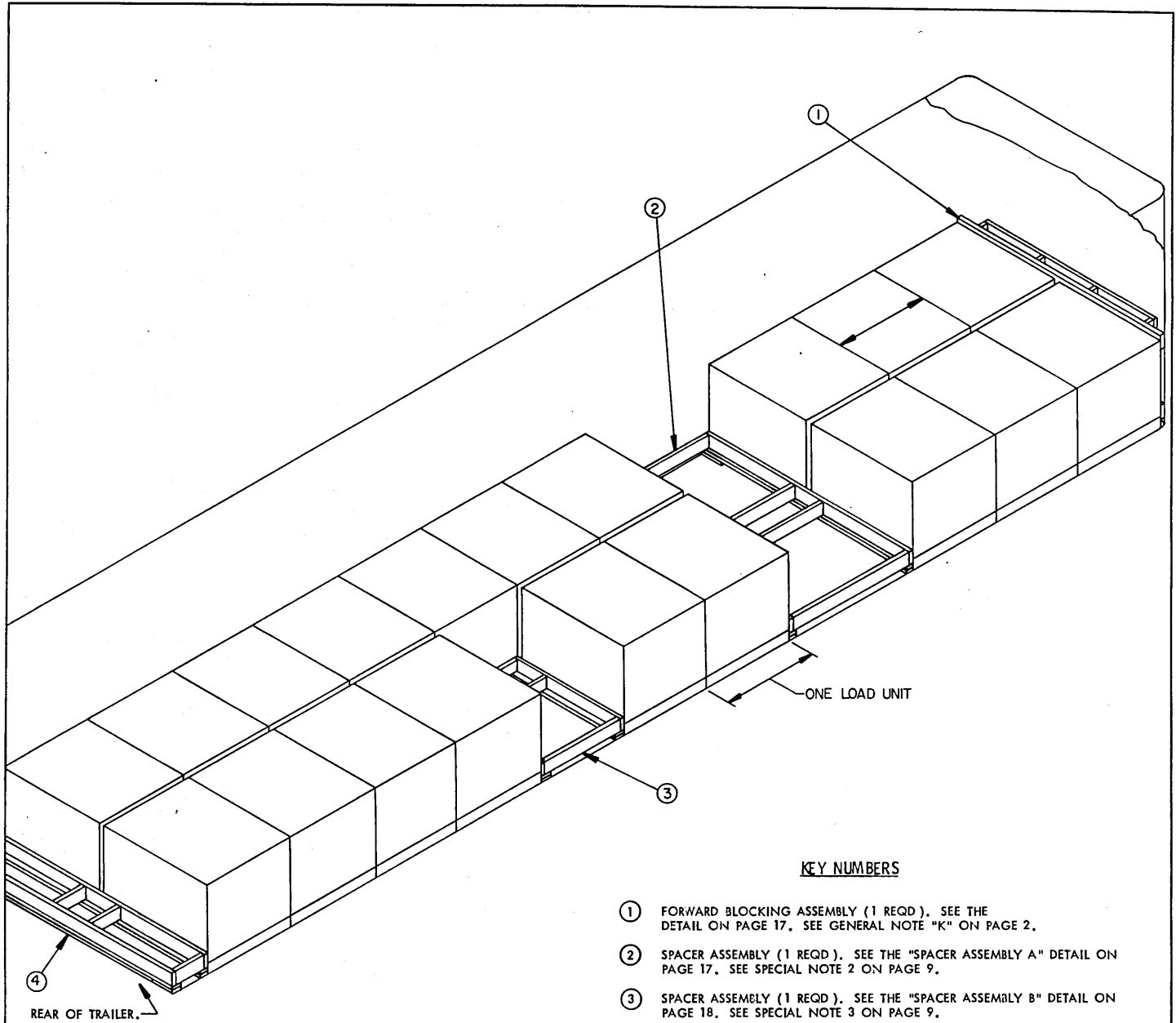
1. AN 18-UNIT CHIMNEY PATTERN LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER HAVING ROUNDED FRONT CORNERS. TRAILERS WIDER THAN 7'-10" CANNOT BE USED.
2. SPACER ASSEMBLY "A", SHOWN AS PIECE MARKED ② IN THE LOAD ON PAGE 6 CAN BE USED FOR THE PURPOSE OF ADJUSTING THE LOAD QUANTITY, OR PROVIDING FOR PROPER WEIGHT DISTRIBUTION. IF THE TRAILER TO BE LOADED IS LONGER THAN 40', THE LOCATION OF THE ASSEMBLY AND/OR THE STRUT LENGTHS MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
3. IF DESIRED, TWO (2) MORE PALLET UNITS MAY BE POSITIONED AT THE REAR OF THE TRAILER TO COMPLETE AN ADDITIONAL "CHIMNEY". PIECES MARKED ② AND ③ WILL THEN BE OMITTED, AND "REAR BLOCKING D" DETAILED ON PAGE 20, WILL BE USED IN LIEU OF PIECE MARKED ④.
4. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE REAR BLOCKING ASSEMBLY "C" AS DETAILED ON PAGE 19. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY "A" AS SHOWN. IF THE VOID AT THE REAR OF THE LOAD MEASURES 1-1/2" OR LESS REAR BLOCKING IS NOT REQUIRED.
5. IF AN ODD NUMBER OF UNITS IS TO BE LOADED, SPACER ASSEMBLY "B", DETAILED ON PAGE 18, MAY BE INSTALLED IN LIEU OF ONE (1) PALLET UNIT. NOTE THAT A SPACER ASSEMBLY MUST BE POSITIONED WHERE THERE WILL BE A PALLET UNIT AT EACH END. A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①, OR ADJACENT TO SPACER ASSEMBLY "A", PIECE MARKED ②.
6. REFER TO GENERAL NOTE "L" ON PAGE 2 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.
7. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.
8. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGES 12 THRU 14.
9. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 22 AND 23 FOR GUIDANCE. THE NAILED HEADER METHOD IS SHOWN ON PAGE 23 AND THE TYGARD METHOD IS SHOWN ON PAGE 22. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	63	42
2" X 6"	78	78
NAILS	NO. REQD	POUNDS
10d (3")	150	2-1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	----- 18 -----	40,464 LBS
DUNNAGE	-----	243 LBS
TOTAL WEIGHT -----		40,707 LBS



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 17. SEE GENERAL NOTE "K" ON PAGE 2.
- ② SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 17. SEE SPECIAL NOTE 2 ON PAGE 9.
- ③ SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY B" DETAIL ON PAGE 18. SEE SPECIAL NOTE 3 ON PAGE 9.
- ④ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY B" DETAIL ON PAGE 19. SEE SPECIAL NOTE 4 ON PAGE 9.

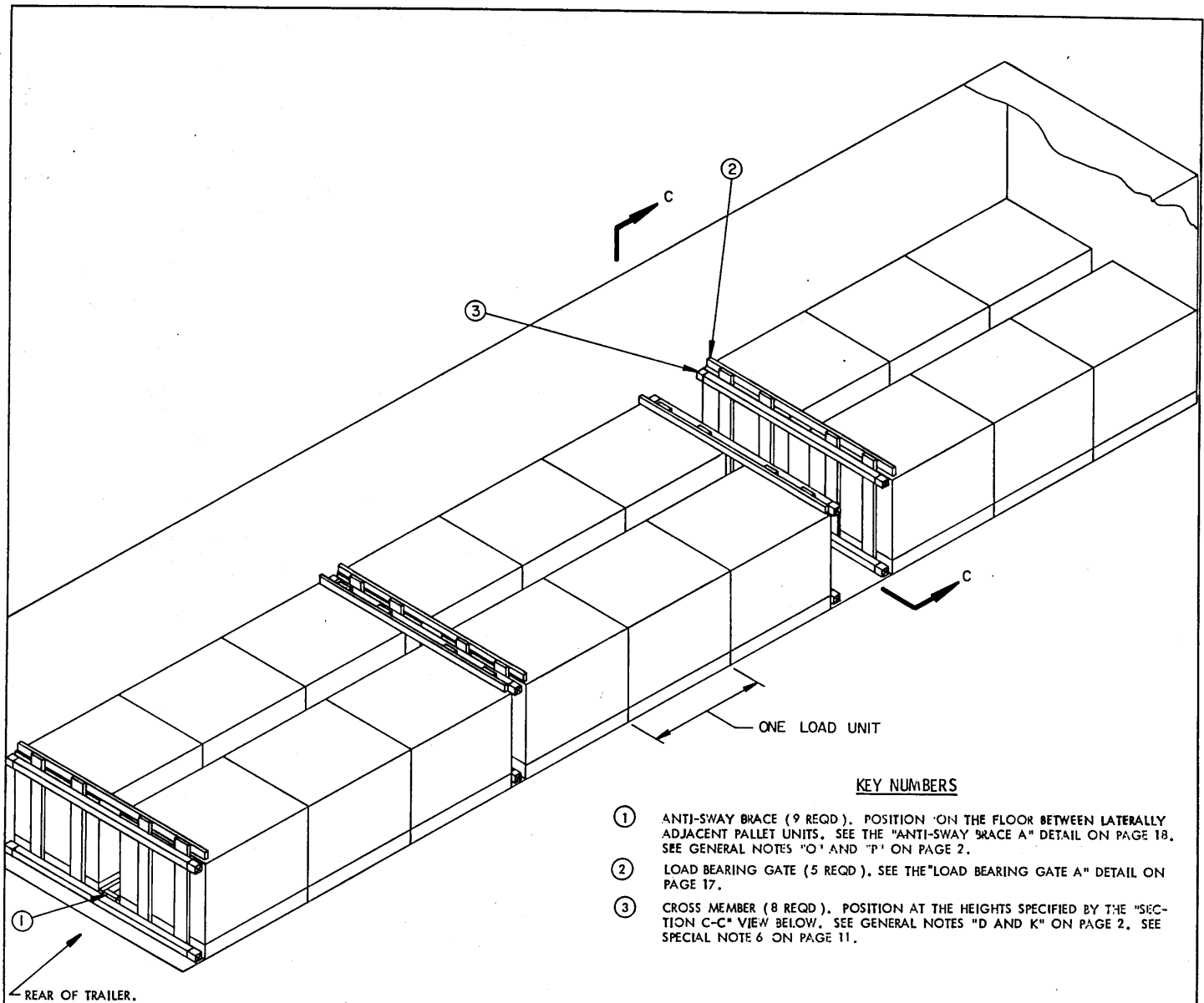
SPECIAL NOTES:

1. A 19-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 8'-1" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TYPE TRAILER. WIDER TRAILERS OF OTHER LENGTHS CAN BE USED.
2. SPACER ASSEMBLY "A" SHOWN AS PIECE MARKED ② IN THE LOAD ON PAGE 8 IS USED FOR THE PURPOSE OF PROVIDING FOR PROPER WEIGHT DISTRIBUTION, AND IS SHOWN AS TYPICAL ONLY. IF THE TRAILER TO BE LOADED IS LONGER THAN 40' THE LOCATION OF THE ASSEMBLY, AND/OR THE STRUT LENGTHS, MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
3. THE SPACER ASSEMBLY SHOWN AS PIECE MARKED ③ IN THE LOAD VIEW, IS ONLY SHOWN TO DEPICT A TYPICAL INSTALLATION. IF A PALLET UNIT IS LOADED IN PLACE OF THE SPACER ASSEMBLY, PIECE MARKED ③ WILL NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST BE POSITIONED WHERE THERE WILL BE A PALLET UNIT AT EACH END. A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
4. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE REAR BLOCKING ASSEMBLY "C" AS DETAILED ON PAGE 19. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY "B" AS SHOWN. IF THE VOID AT THE REAR OF THE LOAD MEASURES 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED.
5. REFER TO GENERAL NOTE "L" ON PAGE 2 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.
6. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.
7. TRAILERS EQUIPPED WITH ROLL UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 22 AND 23 FOR GUIDANCE. THE NAILED HEADER METHOD IS SHOWN ON PAGE 23 AND THE TYGARD METHOD IS SHOWN ON PAGE 22. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 3"	2	1
2" X 4"	62	42
2" X 6"	89	89
NAILS	NO. REQD	POUNDS
10d (3")	164	2-1/2

LOAD AS SHOWN

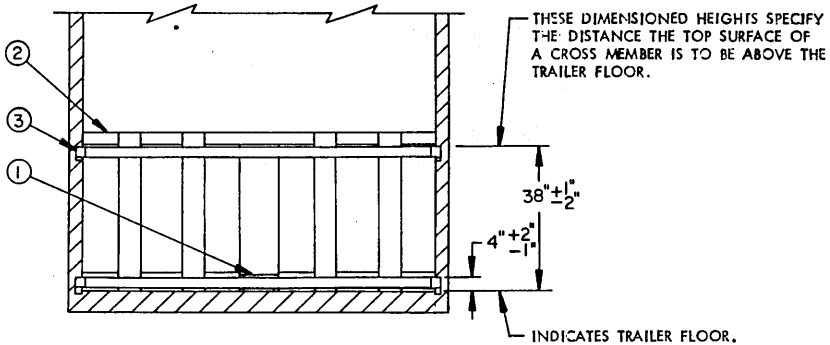
ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	19	42,712 LBS
DUNNAGE		267 LBS
TOTAL WEIGHT		42,979 LBS



ISOMETRIC VIEW

KEY NUMBERS

- ① ANTI-SWAY BRACE (9 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 18. SEE GENERAL NOTES "O" AND "P" ON PAGE 2.
- ② LOAD BEARING GATE (5 REQD). SEE THE "LOAD BEARING GATE A" DETAIL ON PAGE 17.
- ③ CROSS MEMBER (8 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION C-C" VIEW BELOW. SEE GENERAL NOTES "D AND K" ON PAGE 2. SEE SPECIAL NOTE 6 ON PAGE 11.



SECTION C-C

SPECIAL NOTES:

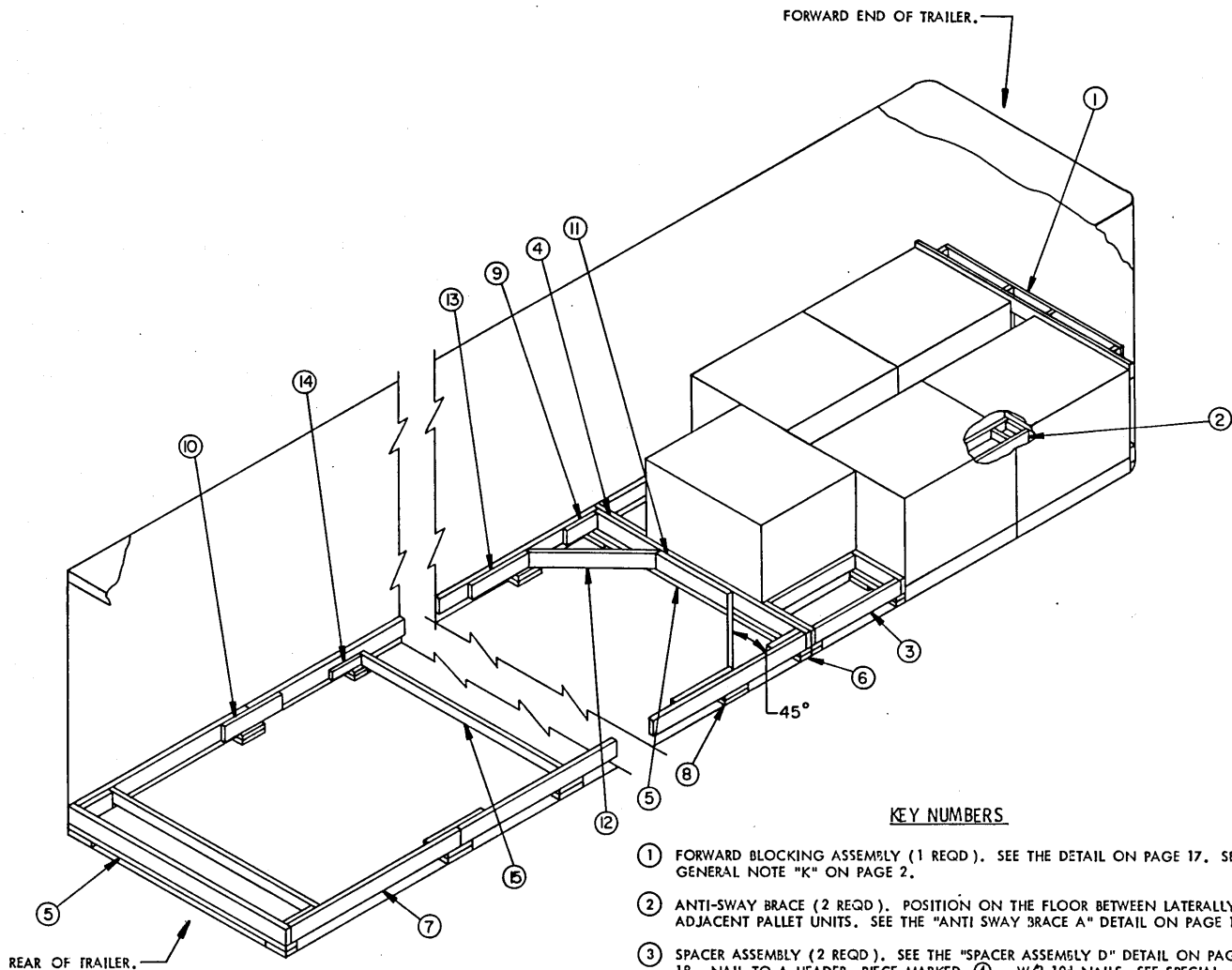
1. AN 18-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES. TRAILERS OF OTHER DIMENSIONS CAN BE USED. SEE GENERAL NOTE "K" ON PAGE 2.
2. IF A PALLET UNIT IS TO BE ADDED OR OMITTED FROM THE DEPICTED LOAD, THE SPACER ASSEMBLY PROCEDURES DEPICTED ON PAGE 15 MAY BE USED. NOTE THAT CROSS MEMBERS AND SEPARATOR GATES ARE REQUIRED AT BOTH ENDS OF THE ODD UNIT.
3. REFER TO GENERAL NOTE "L" ON PAGE 2 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.
4. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.
5. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGE 15.
6. IF THE TRAILER BEING LOADED IS EQUIPPED ONLY WITH SHORT WALL MEMBERS AT THE REAR FOR ATTACHMENT OF THE CROSS MEMBERS, THE CROSS MEMBERS AND LOAD BEARING GATES LOCATED THROUGHOUT THE CENTER PORTION OF THE LOAD LENGTH WILL BE OMITTED. ADDITIONAL CROSS MEMBERS MUST BE INSTALLED AT THE 16" AND 28" HEIGHTS, AND A SPACER ASSEMBLY MAY BE REQUIRED TO PROVIDE FOR PROPER WEIGHT DISTRIBUTION. SEE THE TYPICAL INSTALLATION IN THE LOAD VIEW ON PAGE 4 AND SPECIAL NOTE 3 ON PAGE 5 FOR GUIDANCE. SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 17.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	129	36
2" X 6"	72	72
NAILS	NO. REQD	POUNDS
10d (3")	234	3-3/4
CROSS MEMBER -----		8 REQD

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT -----	18 -----	40,464 LBS
DUNNAGE -----		320 LBS
TOTAL WEIGHT -----		40,784 LBS



KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 17. SEE GENERAL NOTE "K" ON PAGE 2.
- ② ANTI-SWAY BRACE (2 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI SWAY BRACE A" DETAIL ON PAGE 18.
- ③ SPACER ASSEMBLY (2 REQD). SEE THE "SPACER ASSEMBLY D" DETAIL ON PAGE 18. NAIL TO A HEADER, PIECE MARKED ④, W/2-10d NAILS. SEE SPECIAL NOTE 2 ON PAGE 13.
- ④ HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). SEE SPECIAL NOTE 6 ON PAGE 13.
- ⑤ HEADER AND SIDE STRUT SUPPORT, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER, PIECE MARKED ④, W/1-10d NAIL EVERY 8".
- ⑥ RISER PIECE, 2" X 4" X 9" (4 REQD). POSITION UNDER EACH END OF HEADER AND SIDE STRUT SUPPORT PIECES MARKED ⑤. NAIL TO PIECE MARKED ⑤ W/2-10d NAILS.
- ⑦ SIDE STRUT, 2" X 6" BY CUT TO FIT BETWEEN THE FORWARD AND REAR HEADERS PIECES MARKED ④ (2 REQD). SEE SPECIAL NOTE 3 ON PAGE 13.
- ⑧ RISER PIECE, 2" X 4" X 9" (DOUBLED) (AS REQD). LAMINATE W/2-10d NAILS. CENTER UNDER THE JOINTS OF PIECES MARKED ⑫ AND ⑬ AND ⑭ AND ⑮ AND UNDER THE SPLICE OF PIECES MARKED ⑩ IF APPLICABLE. NAIL TO SIDE STRUT MARKED ⑦ W/2-10d NAILS.
- ⑨ POCKET CLEAT, 2" X 6" X 12" (4 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑦, W/3-10d NAILS. TOENAIL TO THE ADJACENT HEADER, PIECE MARKED ④, W/3-12d NAILS.
- ⑩ SPLICE PIECE, 2" X 6" X 24" (AS REQD). CENTER ON JOINT OF PIECES MARKED ⑦ AND NAIL TO SIDE STRUT MARKED ⑦ W/4-10d NAILS AT EACH END. SEE SPECIAL NOTE 3 ON PAGE 13.
- ⑪ CENTER CLEAT, 2" X 6" X 30" (1 REQD). NAIL TO A HEADER, PIECE MARKED ④, W/6-10d NAILS.
- ⑫ DIAGONAL BRACE, 2" X 6" BY CUT-TO-FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO THE ADJACENT HEADER AND SIDE STRUT, PIECES MARKED ④ AND ⑦, W/2-16d NAILS AT EACH END.
- ⑬ BACK-UP CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑦, W/8-10d NAILS.
- ⑭ STRUT BRACE RETAINING CLEAT, 2" X 4" X 12" (AS REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑦, W/3-10d NAILS. SEE SPECIAL NOTE 4 ON PAGE 13.

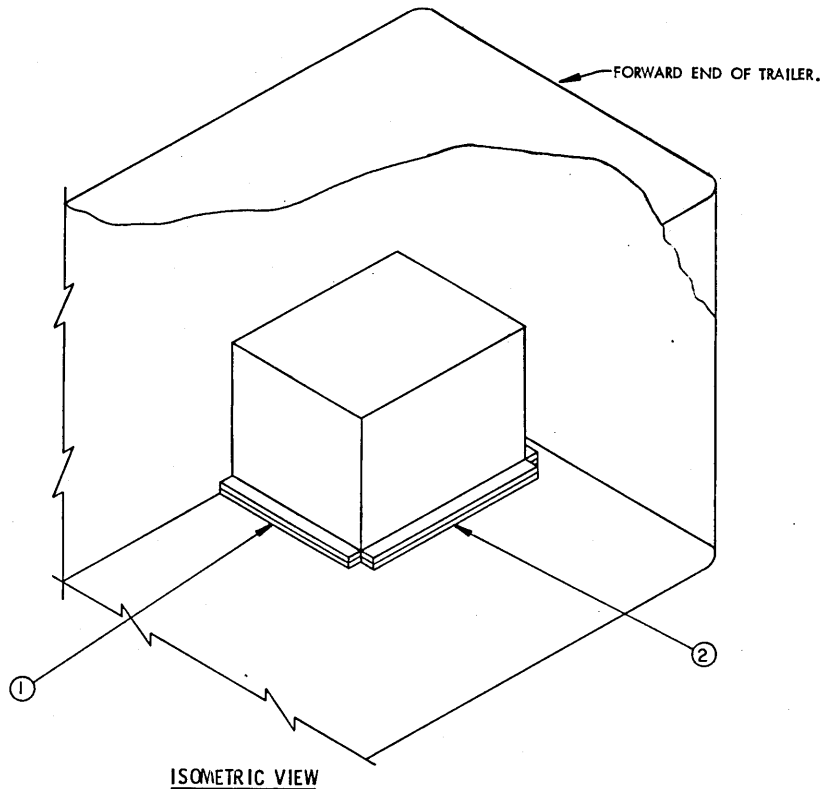
(KEY NUMBERS CONTINUED)

- ⑮ STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQUIRED). NAIL TO THE POCKET CLEATS, PIECES MARKED ⑨ AND/OR TO THE STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑭, W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 4 ON PAGE 13.

(CONTINUED AT LEFT)

SPECIAL NOTES:

1. A 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE SPACER ASSEMBLIES, PIECE MARKED ③ , ARE SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION. SPACER ASSEMBLIES WILL BE USED WHEN A PALLET UNIT IS OMITTED. THEY MAY OR MAY NOT BE REQUIRED, DEPENDING ON THE QUANTITY OF PALLET UNITS TO BE SHIPPED.
3. DEPENDING ON THE NUMBER OF UNITS BEING LOADED, EACH OF THE SIDE STRUTS, PIECES MARKED ② , MAY NEED TO BE FORMED FROM MORE THAN ONE PIECE OF MATERIAL. IF SUCH IS THE CASE, THE SIDE STRUTS MUST BE SPLICED. SPLICING CAN BE ACCOMPLISHED BY CENTERING A 2" X 6" X 24" PIECE ON THE JOINT OF THE SIDE STRUTS AND NAILING IT TO THE SIDE STRUTS W/4-10d NAILS AT EACH END. CAUTION: A RISER PIECE, PIECE MARKED ⑧ , MUST BE POSITIONED UNDER EACH SPLICE JOINT. NOTE: IF DESIRED, THE STRUT BRACING PIECE (S), PIECE MARKED ⑤ , MAY BE NAILED TO THE SPLICE PIECES IN LIEU OF USING ADDITIONAL STRUT BRACE RETAINING CLEATS, PIECES MARKED ④ .
4. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO PIECE MARKED ⑨ . IF THE SIDE STRUTS, PIECES MARKED ② , ARE LONGER THAN 7'-0" AN ADDITIONAL STRUT BRACE, PIECE MARKED ⑩ , AND TWO (2) STRUT BRACE RETAINING CLEATS, PIECES MARKED ④ , AND TWO (2) RISER PIECES MARKED ③ , MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.
5. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ④ THRU ⑬ , IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 20,000 POUNDS.
6. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL UP TYPE DOORS" ON PAGES 22 AND 23 FOR GUIDANCE. THE NAILED-HEADER METHOD SHOWN ON PAGE 23 OR THE TYGARD METHOD SHOWN ON PAGE 22 SHOULD BE USED IF POSSIBLE IN LIEU OF PIECES MARKED ④ THRU ⑬ WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.
7. IF DESIRED IN TRAILERS EQUIPPED WITH NAILABLE FLOORS, THE NAILED-HEADER METHOD OF REAR BLOCKING MAY BE USED IN LIEU OF PIECES MARKED ④ THRU ⑬ . REFER TO PAGE 23 FOR GUIDANCE. AS AN ALTERNATIVE IN NAILABLE FLOOR TRAILERS, OR IN TRAILERS HAVING NON-NAILABLE FLOORS, THE TYGARD METHOD DEPICTED ON PAGE 22 MAY BE USED.
8. WHEN THE NAILED HEADER METHOD OF BRACING SHOWN ON PAGE 23 IS APPLIED FOR THE BRACING OF THE DEPICTED 5-UNIT LOAD OR ANY ODD NUMBERED QUANTITY, ONLY THE DOUBLED 2" X 4" PIECES ARE REQUIRED; OMIT THE REAR BLOCKING ASSEMBLY. WHEN SHIPPING AN EVEN NUMBERED QUANTITY, THE NAILED HEADER METHOD WILL APPLY AS SHOWN.



ISOMETRIC VIEW

SPECIAL NOTES:

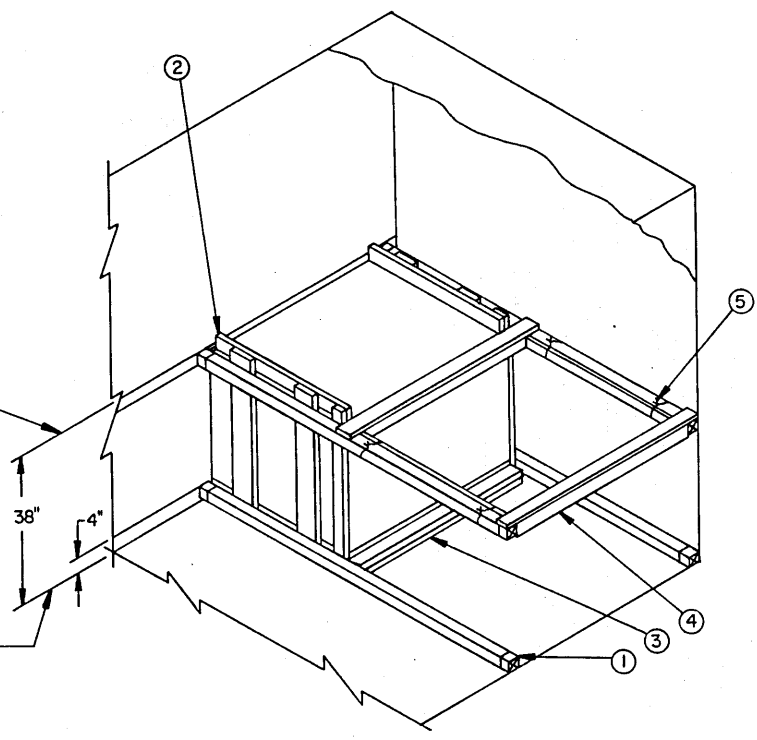
1. A 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. A TYPICAL LTL LOAD OF ONE (1) PALLET UNIT IS SHOWN. THE POSITIONING OF A SINGLE PALLET UNIT IS OPTIONAL. IF THE TRAILER HAS A SQUARE FRONT THE FORWARD END BLOCKING, PIECE MARKED ①, MAY BE OMITTED AND THE UNIT POSITIONED AGAINST THE END WALL.
3. MORE THAN ONE UNIT CAN BE SHIPPED. THE LOAD SHOULD BE FORMED IN ROWS, WITH THE UNITS POSITIONED AGAINST OPPOSITE SIDEWALLS. THE ANTI SWAY BRACE, PIECE MARKED ② IN THE LOAD ON PAGE 12 MUST BE INSTALLED BETWEEN THE LATERALLY ADJACENT UNITS. SEE THE "ANTI SWAY BRACE A" DETAIL ON PAGE 18. CAUTION: THE END BLOCKING, PIECE MARKED ①, WILL NOT BE RELIED UPON TO RETAIN A LOAD OF OVER 5,000 POUNDS.

KEY NUMBERS

- ① END BLOCKING, 2" X 4" X 40" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "O" ON PAGE 2.
- ② SIDE BLOCKING, 2" X 4" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.

THESE DIMENSIONED HEIGHTS SPECIFY THE DISTANCE THE TOP SURFACE OF A CROSS MEMBER IS TO BE ABOVE THE TRAILER FLOOR.

INDICATES TRAILER FLOOR.



ISOMETRIC VIEW

SPECIAL NOTES:

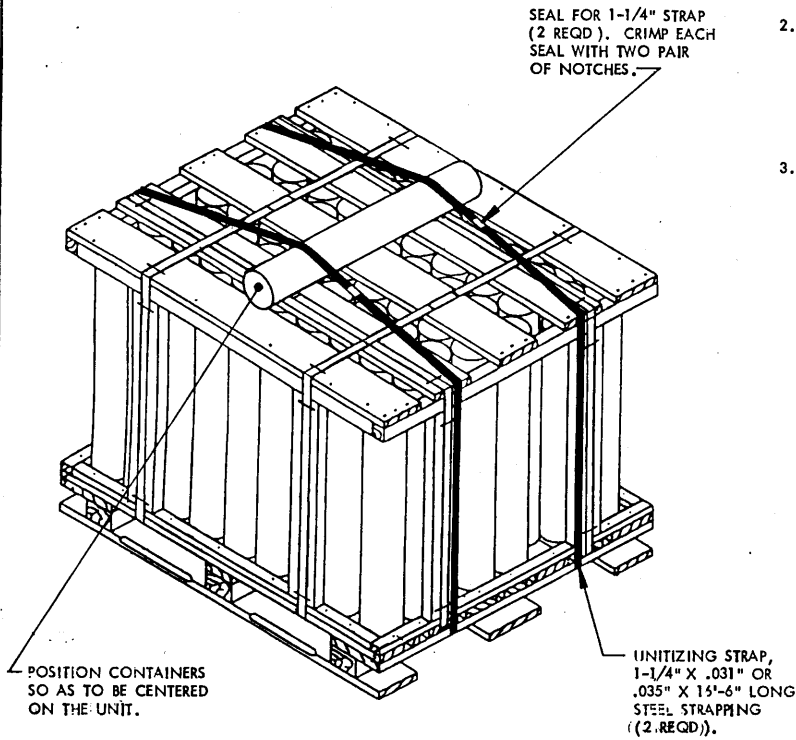
1. THESE OUTLOADING PROCEDURES DEPICT A VAN TRAILER WHICH IS EQUIPPED WITH MECHANICAL BRACING DEVICES.
2. A TYPICAL LTL LOAD OF ONE (1) PALLETIZED UNIT IS SHOWN. IF TWO (2) PALLETIZED UNITS ARE TO BE TRANSPORTED, POSITION THE UNITS TWO ACROSS THE WIDTH OF THE TRAILER. OMIT THE SIDE BLOCKING, SPACER ASSEMBLY, AND TIE WIRES SHOWN AS PIECES MARKED ③ , ④ , AND ⑤ . NOTE: WHEN LOADING TWO (2) PALLETIZED UNITS ACROSS THE WIDTH OF THE TRAILER, POSITION THE UNITS AGAINST THE FORWARD END WALL (UNLESS TRAILER HAS ROUNDED CORNERS) AND OMIT THE TWO CROSS MEMBERS AT THE FORWARD END. INSTALL AN "ANTI-SWAY BRACE A" DETAILED ON PAGE 18, BETWEEN UNITS. LOAD BEARING GATE A" DETAILED ON PAGE 17 WILL BE USED IN LIEU OF PIECES MARKED ② .
3. IF THE TRAILER BEING USED HAS A NON-NAILABLE FLOOR, OMIT THE SIDE BLOCKING AND INSTALL AN ADDITIONAL SPACER ASSEMBLY, PIECE MARKED ④ ON THE LOWER LEVEL CROSS MEMBERS.
4. THE HEIGHT LOCATIONS OF THE CROSS MEMBERS SPECIFIED ABOVE MAY VARY WITHIN THE TOLERANCES SPECIFIED IN THE "SECTION C-C" VIEW ON PAGE 10.

KEY NUMBERS

- ① CROSS MEMBER (4 REQD). POSITION AT THE HEIGHTS AS SPECIFIED BY THE ISOMETRIC VIEW ABOVE. SEE GENERAL NOTES "D" AND "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON THIS PAGE.
- ② LOAD BEARING GATE (2 REQD). SEE THE "LOAD BEARING GATE B" DETAIL ON PAGE 17.
- ③ SIDE BLOCKING, 2" X 4" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3 AT LEFT.
- ④ SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY C" DETAIL ON PAGE 18.
- ⑤ TIE WIRE, NO. 14' GAGE WIRE (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE CROSS MEMBER AND SPACER ASSEMBLY. BRING THE ENDS TOGETHER AND TWIST TAUT.

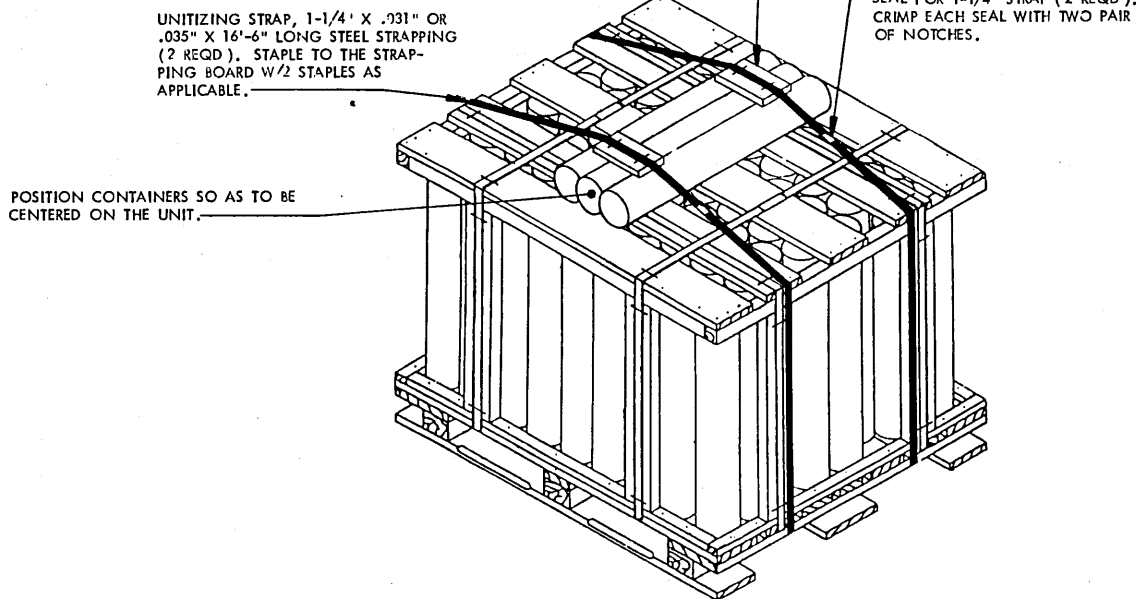
SPECIAL NOTES:

1. SHIPMENTS OF COMPLETE ROUNDS SHOULD CONSIST OF FULL PALLET UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT, OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION, MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LEFTOVER CONTAINERS.
2. SHIPMENT OF LEFTOVER CONTAINERS IS APPLICABLE FOR CONUS AND OCONUS MOTOR CARRIER SHIPMENTS FROM DEPOT TO DEPOT OR FROM DEPOT TO POSTS, CAMPS, AND STATIONS, OR UPON APPROVAL FROM HIGHER HEADQUARTERS, FOR SHIPMENTS FROM LOAD, ASSEMBLE, AND PACK PLANTS TO DEPOTS. CAUTION: A LOAD CONTAINING LEFTOVER CONTAINERS SECURED TO THE TOP OF A FULL OR PARTIAL UNIT, MUST NOT BE DESTINED FOR SHIPMENT OVERSEAS BY WATER CARRIER.
3. THE PROCEDURES ON THIS PAGE ARE APPLICABLE FOR THE SHIPMENT OF LEFTOVER CONTAINERS IN ANY OF THE LOADS DEPICTED HEREIN.



SECUREMENT OF ONE CONTAINER

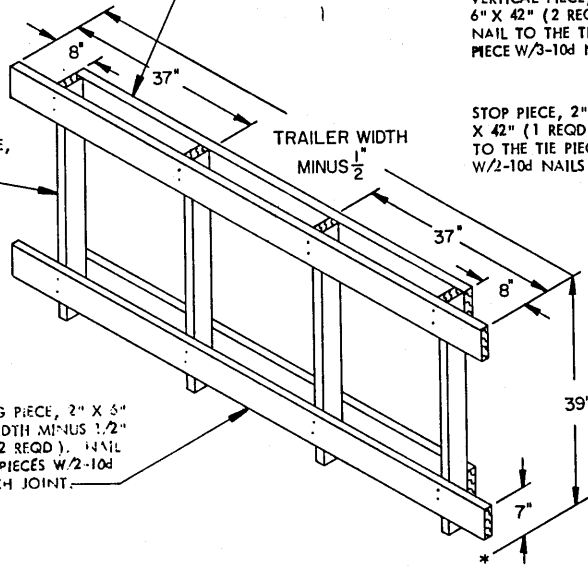
STRAPPING BOARD, 1" X 4" X 10" (2 REQD). ADD FIVE INCHES (5") TO THE STRAPPING BOARD FOR EACH ADDITIONAL CONTAINER NOT TO EXCEED EIGHT. NOTE THAT STRAPPING BOARDS ARE NOT REQUIRED WHEN SECURING ONE OR TWO LEFTOVER CONTAINERS.



SECUREMENT OF THREE CONTAINERS

LATERAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 16-1/2" IN LENGTH (2 REQD). ALIGN VERTICALLY WITH LOAD BEARING PIECES AND NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

VERTICAL PIECE, 2" X 4" X 39" (4 REQD).

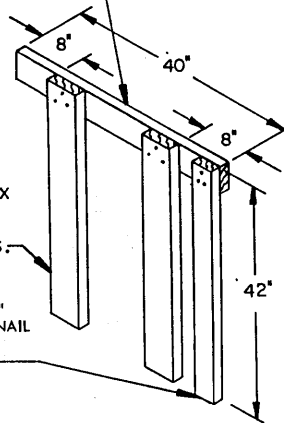


LOAD BEARING PIECE, 2" X 3" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

FORWARD BLOCKING ASSEMBLY

THIS ASSEMBLY IS DESIGNED FOR USE AT THE FRONT END OF A TRAILER HAVING ROUNDED CORNERS, AND IS APPLICABLE FOR A CORNER RADIUS OF NOT MORE THAN 6-1/2". IF THE RADIUS IS FROM 6-1/2" TO 8", 2" X 6" VERTICAL PIECES WILL BE USED IN LIEU OF THE 2" X 4" PIECES. IF THE TRAILER TO BE LOADED HAS LARGE-ANGLED CORNERS AT THE FORWARD END, REFER TO PAGE 24 FOR GUIDANCE.

TIE PIECE, 2" X 4" X 40" (1 REQD). POSITION THIS END AGAINST TRAILER SIDE WALL.



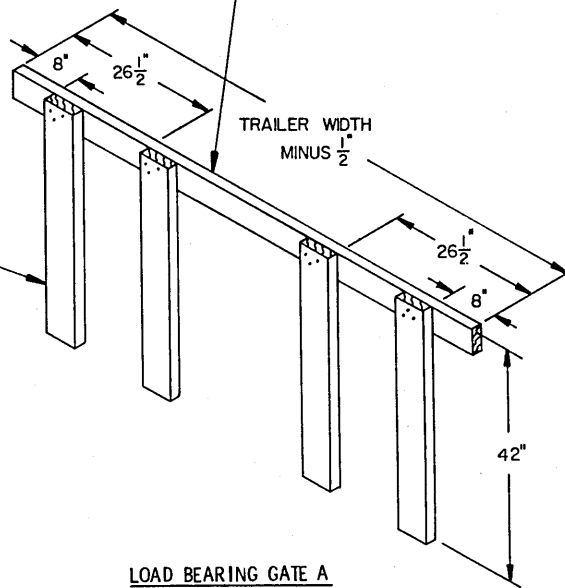
VERTICAL PIECE, 2" X 6" X 42" (2 REQD). NAIL TO THE TIE PIECE W/3-10d NAILS.

STOP PIECE, 2" X 4" X 42" (1 REQD). NAIL TO THE TIE PIECE W/2-10d NAILS.

LOAD BEARING GATE B

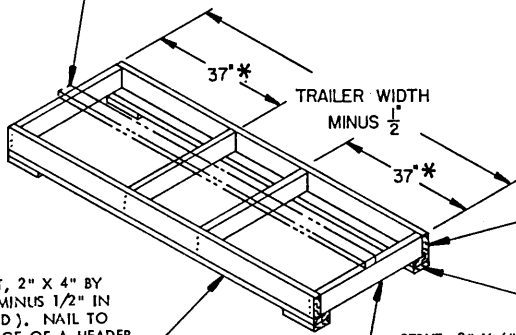
(RIGHT HAND AND LEFT HAND GATES REQUIRED).

TIE PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (1 REQD).



VERTICAL PIECE, 2" X 6" X 42" (4 REQD). NAIL TO THE TIE PIECE W/3-10d NAILS.

STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.



LOAD BEARING GATE A

HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

RISER PIECE, 2" X 4" X 9" (4 REQD). NAIL TO A HEADER SUPPORT PIECE W/2-10d NAILS.

HEADER SUPPORT, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER W/1-10d NAIL EVERY 12".

STRUT, 2" X 5" BY CUT TO FIT (4 REQD).

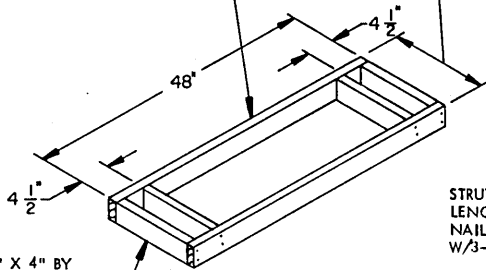
SPACER ASSEMBLY A

* THIS DIMENSION WILL BE 43" IF PALLET UNITS ARE POSITIONED LENGTHWISE IN THE TRAILER.

DETAILS

BUFFER PIECE, 2" X 4" X 48"
(2 REQD); NAIL TO THE STRUTS
W/2-10d NAILS AT EACH JOINT.

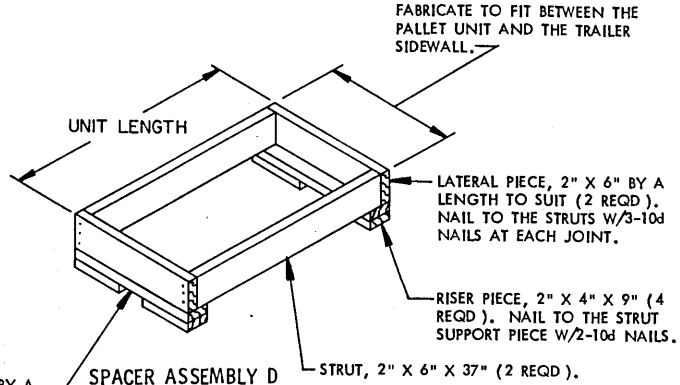
FABRICATE TO FIT
MINUS 1/2".



STRUT, 2" X 4" BY
CUT TO FIT (4 REQD).

ANTI-SWAY BRACE A

THIS ASSEMBLY IS DESIGNED FOR USE ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. NOTE THAT AN ASSEMBLY NEED NOT BE CONSTRUCTED FOR A TIGHT FIT; UP TO ONE HALF INCH (1/2") SPACE IS PERMITTED.



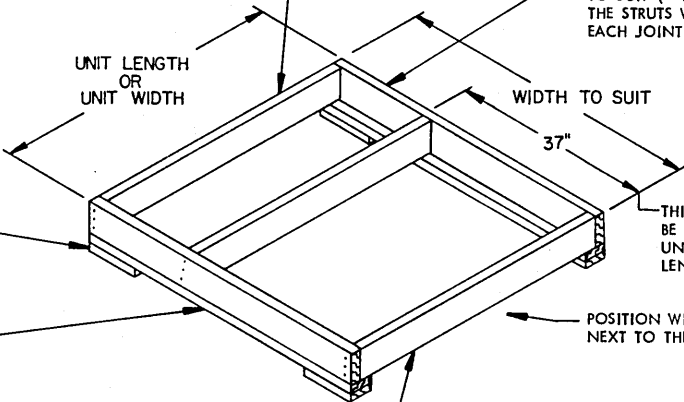
STRUT SUPPORT, 2" X 4" BY A
LENGTH TO SUIT (2 REQD).
NAIL TO A LATERAL PIECE
W/3-10d NAILS.

SPACER ASSEMBLY D

THIS ASSEMBLY IS DESIGNED FOR USE AS LATERAL BRACING OF A SINGLE PALLET UNIT AS SHOWN IN THE LOAD ON PAGE 12.

STRUT, 2" X 6" BY A LENGTH TO
SUIT (1 REQD). NAIL TO THE
HEADERS W/3-10d NAILS AT EACH
END.

HEADER, 2" X 6" BY LENGTH
TO SUIT (2 REQD). NAIL TO
THE STRUTS W/3-10d NAILS AT
EACH JOINT.



RISER PIECE, 2" X 4" X 9"
(4 REQD). NAIL TO THE
HEADER SUPPORT PIECE
W/2-10d NAILS.

HEADER SUPPORT PIECE,
2" X 4" BY LENGTH TO
SUIT (2 REQD). NAIL TO THE
BOTTOM EDGE
OF A HEADER W/1-10d
NAIL EVERY 12".

THIS DIMENSION WILL
BE 43" IF THE PALLET
UNITS ARE POSITIONED
LENGTHWISE.

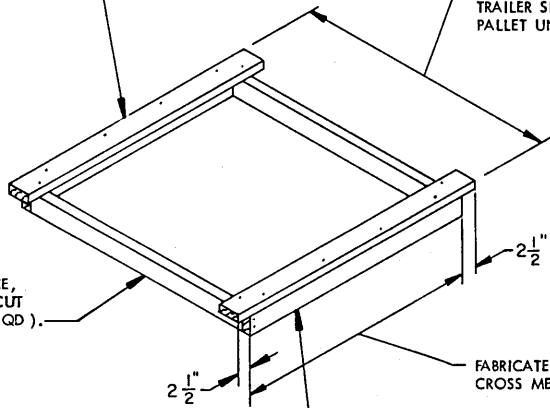
POSITION WITH THIS END
NEXT TO THE TRAILER SIDEWALL.

SPACER ASSEMBLY B

THIS ASSEMBLY IS DESIGNED FOR USE IN THE PLACE OF A PALLET UNIT WHICH IS OMITTED FROM THE LOAD IN A CONVENTIONAL VAN TRAILER, AS TYPICALLY SHOWN IN THE LOAD ON PAGE 8.

SUPPORT PIECE, 2" X 4" BY A LENGTH
TO SUIT (2 REQD). NAIL TO THE
LONGITUDINAL PIECE W/4-10d NAILS
AND TO THE LATERAL PIECE W/1-10d
NAIL AT EACH JOINT.

FABRICATE TO FIT BETWEEN
TRAILER SIDEWALL AND
PALLET UNIT.



LATERAL PIECE,
2" X 4" BY CUT
TO FIT (2 REQD).

FABRICATE TO FIT BETWEEN INSTALLED
CROSS MEMBERS (REF: 51").

SPACER ASSEMBLY C

THIS ASSEMBLY IS DESIGNED FOR USE AS LATERAL BRACING IN A TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES.

LONGITUDINAL PIECE, 2" X 4" BY CUT
TO FIT (2 REQD). NAIL TO THE LATERAL
PIECE W/2-10d NAILS AT EACH END.

STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-12d NAILS AT EACH JOINT.

RISER PIECE, 2" X 4" X 15" (4 REQD). NAIL TO THE STRUT LEDGER W/3-10d NAILS.

RETAINER PIECE, 2" X 4" X 9" (2 REQD). NAIL TO THE STRUT LEDGER AND RISER PIECE W/3-10d NAILS.

STRUT, 2" X 6" BY CUT TO FIT (4 REQD).

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING ASSEMBLY AND THE TRAILER DOORS WHEN THEY ARE CLOSED. NAIL TO THE REAR BLOCKING ASSEMBLY W/4 APPLICABLY SIZED NAILS.

HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

STRUT LEDGER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER W/1-10d NAIL EVERY 12".

REAR BLOCKING ASSEMBLY A

THIS ASSEMBLY IS FOR USE AT THE REAR END OF CROSSWISE POSITIONED PALLET UNITS WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS GREATER THAN 9". NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

RISER PIECE, 2" X 4" X 9" (4 REQD). NAIL TO THE STRUT LEDGER W/2-10d NAILS.

RETAINER PIECE, 2" X 3" X 11" (2 REQD). NAIL TO THE STRUT LEDGER W/3-10d NAILS.

STRUT, 2" X 6" BY CUT TO FIT (4 REQD).

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING ASSEMBLY AND THE TRAILER DOORS WHEN THEY ARE CLOSED. NAIL TO THE REAR BLOCKING ASSEMBLY W/4 APPLICABLY SIZED NAILS.

HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

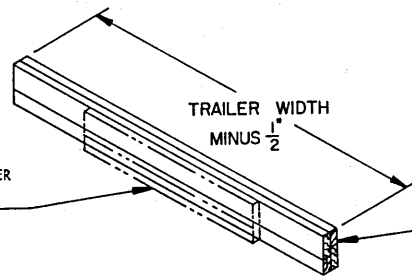
STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-12d NAILS AT EACH JOINT.

STRUT LEDGER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER W/1-10d NAIL EVERY 12".

REAR BLOCKING ASSEMBLY B

THIS ASSEMBLY IS FOR USE AT THE REAR END OF LENGTHWISE POSITIONED PALLET UNITS WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS GREATER THAN 9". NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL, 4" AND 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING AND THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. POSITION PIECES ON EDGE, ONE ON TOP OF THE OTHER AS SHOWN, AND NAIL TO THE REAR BLOCKING W/4 APPLICABLY SIZED NAILS.

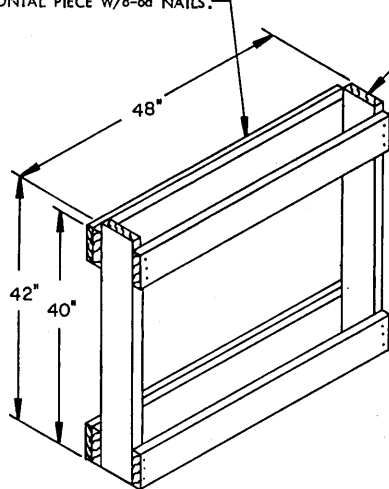


SOLID FILL, 4" AND 6" WIDE MATERIAL BY TRAILER WIDTH MINUS 1/2" IN LENGTH BY THE THICKNESS REQUIRED TO CONTACT REAR CORNER POSTS OR TO CONTACT REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. POSITION PIECES ON EDGE, ONE ON TOP OF THE OTHER AS SHOWN, AND LAMINATE W/1-10d NAIL EVERY 12".

REAR BLOCKING ASSEMBLY C

THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9".

BEARING PIECE, 1" X 6" X 48"
(2 REQD). LAMINATE TO THE
HORIZONTAL PIECE W/8-6d NAILS.



CRIB FILL A

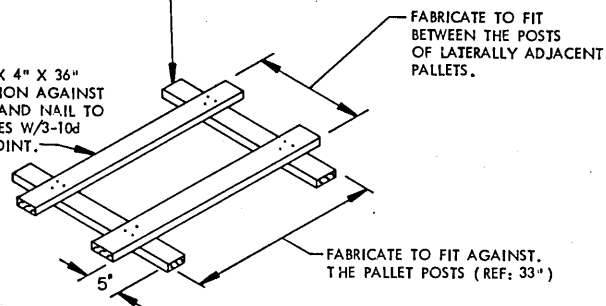
AN ASSEMBLY NEED NOT BE CONSTRUCTED FOR A TIGHT FIT; UP TO ONE INCH (1") SPACE IS PERMITTED FOR LATERAL VOIDS EXCEEDING 10", USE CRIB FILL B" DETAILED ON PAGE 21.

VERTICAL PIECE, 2" X 6" X 42" (2 REQD).

HORIZONTAL PIECE, 2" X 6" X 48"
(4 REQD). NAIL TO THE VERTICAL PIECES
W/3-10d NAILS AT EACH END.

RETAINER PIECE, 2" X 4" BY A LENGTH TO SUIT
(2 REQD). POSITION TO EXTEND UNDER
LATERALLY ADJACENT PALLETS AND AGAINST THE
PALLET POSTS.

BUFFER PIECE, 2" X 4" X 36"
(2 REQD). POSITION AGAINST
THE PALLET POSTS AND NAIL TO
THE RETAINER PIECES W/3-10d
NAILS AT EACH JOINT.



ANTI-SWAY BRACE B

IF DESIRED, THE ANTI-SWAY BRACE CAN BE PARTIALLY PRE-ASSEMBLED. ONE BUFFER PIECE CAN BE NAILED TO BOTH RETAINER PIECES. THE LONG ENDS OF THE ASSEMBLY CAN THEN BE INSTALLED INTO THE FORKLIFT OPENING OF A LOADED PALLET PRIOR TO POSITIONING THE LATERALLY ADJACENT PALLET.

STRUT BRACING, 2" X 4" BY TRAILER WIDTH
MINUS 1/2" IN LENGTH (1 REQD FOR EVERY
7'-0" OF STRUT LENGTH FOR STRUTS LONGER
THAN 7'-0"). NAIL TO THE STRUTS W/2-12d
NAILS AT EACH JOINT.

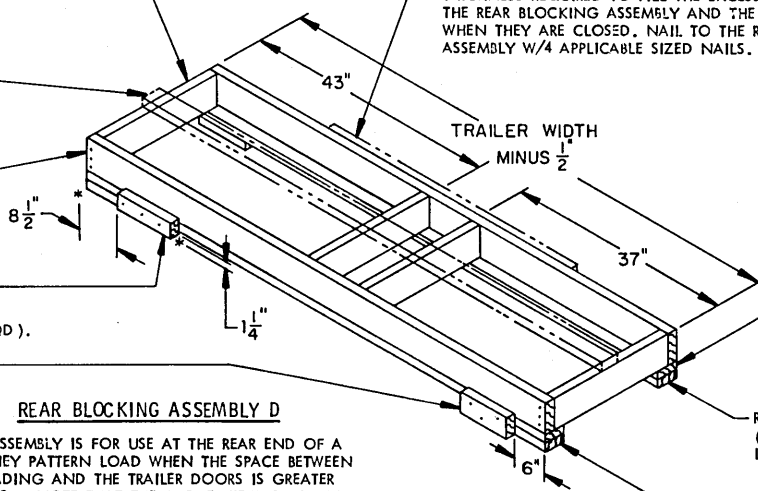
HEADER, 2" X 6" BY TRAILER WIDTH
MINUS 1/2" IN LENGTH (2 REQD).
NAIL TO THE STRUTS W/3-10d NAILS
AT EACH JOINT.

RETAINER PIECE, 2" X 3" X 11" (1 REQD).
NAIL TO THE STRUT LEDGER W/3-10d NAILS.

RETAINER PIECE, 2" X 4" X 9" (1 REQD).
NAIL TO THE RISER PIECE AND STRUT
LEDGER W/3-10d NAILS.

STRUT, 2" X 6" BY
CUT-TO-FIT (4 REQD).

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS,
INSTALL SOLID FILL 6" WIDE BY 48" LONG BY THE
THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN
THE REAR BLOCKING ASSEMBLY AND THE TRAILER DOORS
WHEN THEY ARE CLOSED. NAIL TO THE REAR BLOCKING
ASSEMBLY W/4 APPLICABLE SIZED NAILS.



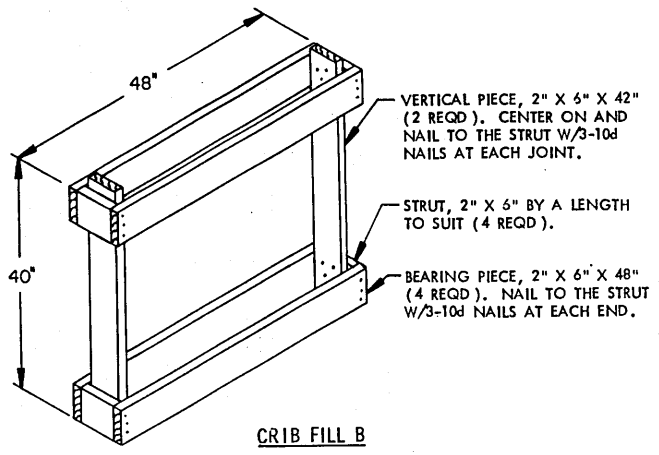
REAR BLOCKING ASSEMBLY D

THIS ASSEMBLY IS FOR USE AT THE REAR END OF A CHIMNEY PATTERN LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS GREATER THAN 9". NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

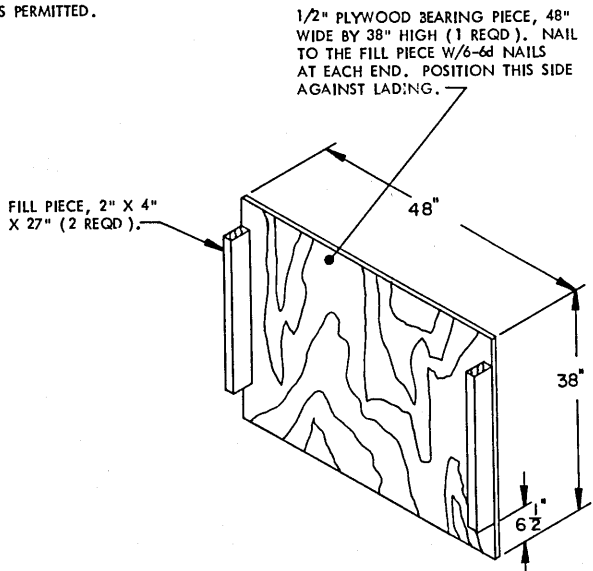
STRUT LEDGER, 2" X 4" BY
TRAILER WIDTH MINUS 1/2"
IN LENGTH (2 REQD).
NAIL TO THE BOTTOM EDGE
OF A HEADER W/1-10d
NAIL EVERY 12".

RISER PIECE, 2" X 4" X 9"
(2 REQD). NAIL TO THE STRUT
LEDGER W/2-10d NAILS.

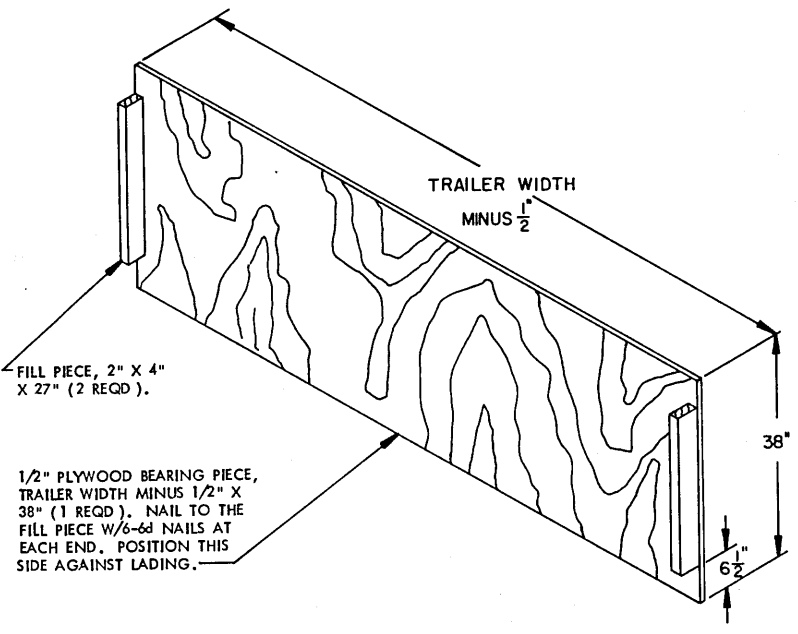
RISER PIECE, 2" X 4" X 15" (2 REQD).
NAIL TO THE STRUT LEDGER W/3-10d
NAILS.



NOTE THAT AN ASSEMBLY NEED NOT BE CONSTRUCTED FOR A TIGHT FIT. UP TO ONE INCH (1") SPACE IS PERMITTED.



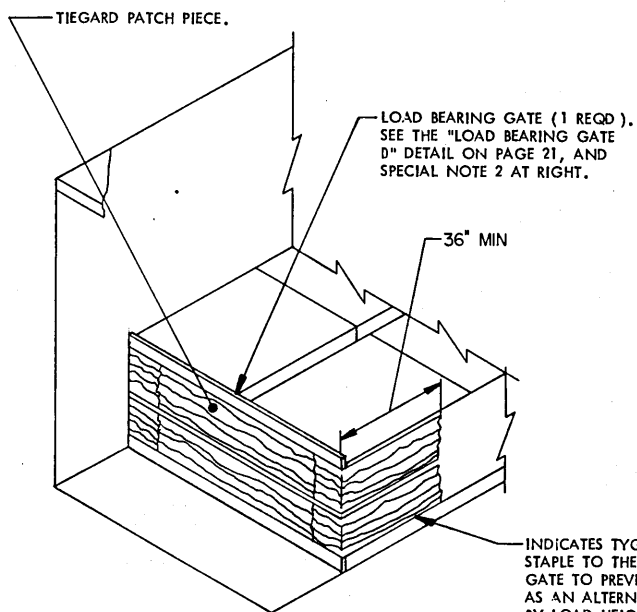
LOAD BEARING GATE C



LOAD BEARING GATE D

SPECIAL NOTES:

1. THE TYGARD METHOD OF REAR BLOCKING DEPICTED, CAN ONLY BE USED IN TRAILERS WHICH HAVE REASONABLY SMOOTH AND ADEQUATELY SECURED SIDE WALL PANELS IN THE AREA WHERE THE TYGARD MATERIAL IS TO BE APPLIED. NOTE THAT TYGARD MATERIAL MUST BE INSTALLED AT TWO LEVELS ON THE REAR LOAD UNIT.
2. A 38" HIGH PLYWOOD GATE MUST BE INSTALLED AT THE REAR OF THE LOAD TO PROVIDE A SMOOTH SURFACE FOR THE TYGARD MATERIAL TO EXTEND AROUND. IF THE REAR LOAD UNIT IS 2-WIDE INSTALL A GATE WHICH IS TRAILER WIDTH MINUS 1/2" IN LENGTH AS SHOWN BY THE "TYGARD METHOD A" DETAIL AT LEFT. IF THE REAR LOAD UNIT IS 1-WIDE, ROTATE THE PALLET, INSTALL ONE (1) PALLET WIDTH GATE, AND ONE (1) TRAILER WIDTH MINUS 1/2" IN LENGTH GATE, AS SHOWN BY THE "TYGARD METHOD B" DETAIL BELOW.
3. THE TYGARD MATERIAL AND THE ADHESIVE FOR ATTACHING IT ARE COMMERCIAL PRODUCTS. FOR A SOURCE OF SUPPLY, CONTACT WALNUT INDUSTRIES, INC., 1344 ADAMS ROAD, P.O. BOX "E", BENSALEM, PA 10920-0860, PHONE 1-800-523-6536. APPLICATION INSTRUCTIONS AND GUIDANCE CAN ALSO BE OBTAINED FROM THAT OFFICE.
4. THE TYGARD METHOD, ALTHOUGH ESPECIALLY FOR TRAILERS HAVING ROLL-UP TYPE DOORS, MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.
5. TYGARD MATERIAL MUST BE APPLIED TO THE WALL IN SUCH A LONGITUDINAL LOCATION THAT IT WILL HAVE A PALLET UNIT BEARING AGAINST IT AS SHOWN BY THE TYGARD METHOD DETAIL AT LEFT. THE TYGARD MATERIAL WILL BE APPLIED TO DIRECTLY OPPOSITE PORTIONS OF THE TRAILER SIDEWALL. IT MUST BE APPLIED TO EXTEND AT LEAST 36" FORWARD OF THE LAST PALLET UNIT CONTACTING THE SIDEWALL ON EACH SIDE OF THE LOAD.
6. NOTICE: IF THE AREA OF A SIDEWALL WHERE THE TYGARD SHOULD BE ATTACHED IS ROUGH AND/OR BROKEN, THE APPLICABLE PIECE (S) OF TYGARD CAN BE LENGTHENED A SUITABLE AMOUNT AND ATTACHED TO THE SIDEWALL AHEAD OF THE INDICATED PREFERRED LOCATION.



TYGARD METHOD A

INDICATES TYGARD MATERIAL. STAPLE TO THE LOAD BEARING GATE TO PREVENT SAGGING. AS AN ALTERNATIVE, A 1" X 4" BY LOAD HEIGHT PIECE MAY BE NAILED THRU THE TYGARD MATERIAL INTO THE LOAD BEARING GATE. CAUTION: PLACE 1" X 4" SO AS TO BE ALIGNED WITH THE VOID BETWEEN THE ROWS OF PALLET UNITS.

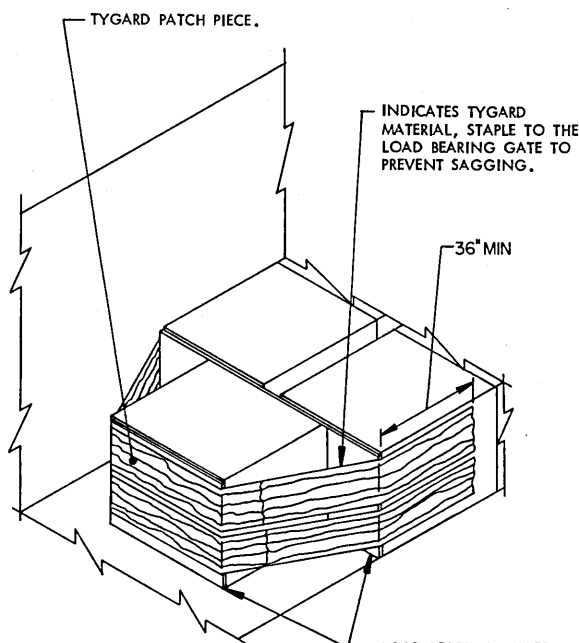
RECOMMENDED EQUIPMENT/INSTALLATION PROCEDURES

EQUIPMENT REQUIRED

PAINT ROLLER, LATEX
PAINT ROLLER PAN
TENSIONING ROD/TOOL
PRESSURE ROLLER
RATCHET WRENCH (12" TO 15" HANDLE)
OPEN END OR BOX WRENCH (12" TO 15" HANDLE)
SCISSORS OR KNIFE
TYGARD (15" WIDE ROLL)
TYGARD ADHESIVE

BASIC INSTALLATION GUIDANCE

1. CUT TO LENGTH THE REQUIRED NUMBER OF TYGARD PIECES (FROM 2 TO 8 DEPENDING UPON THE LOAD CONFIGURATION) FOR ATTACHMENT TO THE TRAILER SIDEWALL. PIECES WILL BE OF A LENGTH AS REQUIRED TO PROVIDE PROPER BONDING TO THE TRAILER SIDEWALL AND TO EXTEND 50" ACROSS THE REAR OF THE LOAD. ALSO, CUT 72" LONG "PATCH" PIECES OF TYGARD MATERIAL, ONE FOR EACH SET OF TWO PIECES PREVIOUSLY CUT.
2. PRIOR TO POSITIONING OF THE PALLETS IN THE REARMOST LOAD UNIT, APPLY TYGARD ADHESIVE TO THE PROPER PORTIONS OF THE TRAILER SIDEWALLS AND TO THE CORD SIDE OF A CORRESPONDING LENGTH OF EACH OF THE TYGARD PIECES THAT ARE TO BE ATTACHED TO THE SIDEWALLS OF THE TRAILER. ALLOW TIME FOR THE ADHESIVE TO "CURE" BEFORE PLACING A STRIP OF TYGARD ONTO A SIDEWALL (ADHESIVE WILL FEEL ALMOST DRY WHEN TOUCHED). NOTE: APPLICATION OF TYGARD IS SIMILAR TO THE APPLICATION OF "FORMICA".
3. APPLY THE TYGARD PIECES TO EACH SIDEWALL OF THE TRAILER SO THAT THE PIECES ARE PARALLEL OR NEARLY PARALLEL TO THE FLOOR. ROLL THE TYGARD WITH THE PRESSURE ROLLER TO ENSURE PROPER BONDING IS ACHIEVED. TEMPORARILY SECURE THE LOOSE ENDS TO THE TRAILER SIDEWALL OR TO AN OPEN HINGED TYPE DOOR OR TO THE OUTSIDE WALL, AS APPLICABLE.
4. POSITION THE PALLETS OF THE REARMOST LOAD UNIT INTO THE TRAILER AND INSTALL THE SPECIFIED ANTI SWAY BRACES.
5. UNDO THE PREVIOUSLY SECURED LOOSE ENDS AND BRING A SET OF TWO PIECES TOGETHER ACROSS THE REAR OF THE LOAD. POSITION THE TENSIONING ROD SO THAT THE LOOSE ENDS OF THE TYGARD MATERIAL EXTEND THRU THE SLOT IN ROD. USING THE TWO WRENCHES, ROLL UP THE TYGARD TO TENSION IT ACROSS REAR OF THE LOAD. POSITION A WRENCH SO AS TO MAINTAIN THE TENSION IN THE TYGARD PIECES. CUT OFF AND DISCARD EXCESS MATERIAL FROM ONE PIECE OF THE TYGARD.
6. APPLY TYGARD ADHESIVE TO THE TENSIONED TYGARD PIECES AND ALSO TO THE CORD SIDE OF THE PREVIOUSLY CUT "PATCH" PIECE. APPLY THE "PATCH" AND ROLL WITH THE PRESSURE ROLLER TO ENSURE PROPER BONDING.



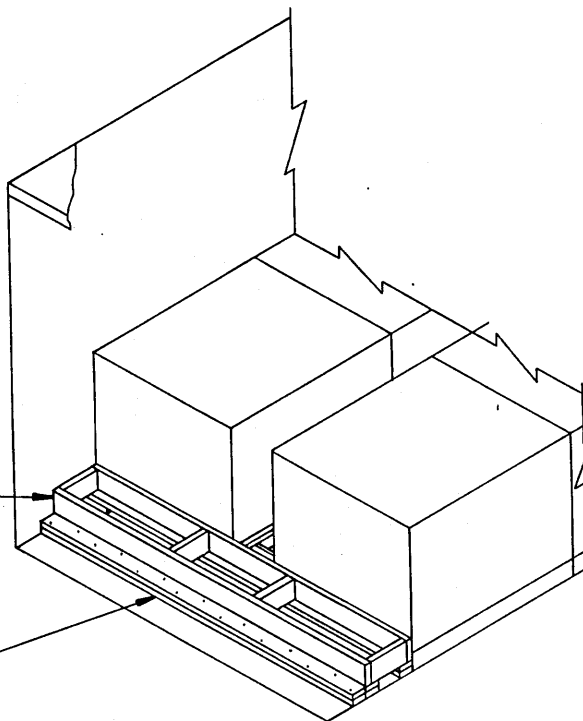
TYGARD METHOD B

INDICATES TYGARD MATERIAL, STAPLE TO THE LOAD BEARING GATE TO PREVENT SAGGING.

LOAD BEARING GATES (1 EACH REQD.). SEE THE "LOAD BEARING GATE C", AND THE "LOAD BEARING GATE D" DETAILS ON PAGE 21 AND SPECIAL NOTE 2 ABOVE.

REAR BLOCKING ASSEMBLY (1 REQD).
SEE SPECIAL NOTE 2 BELOW.

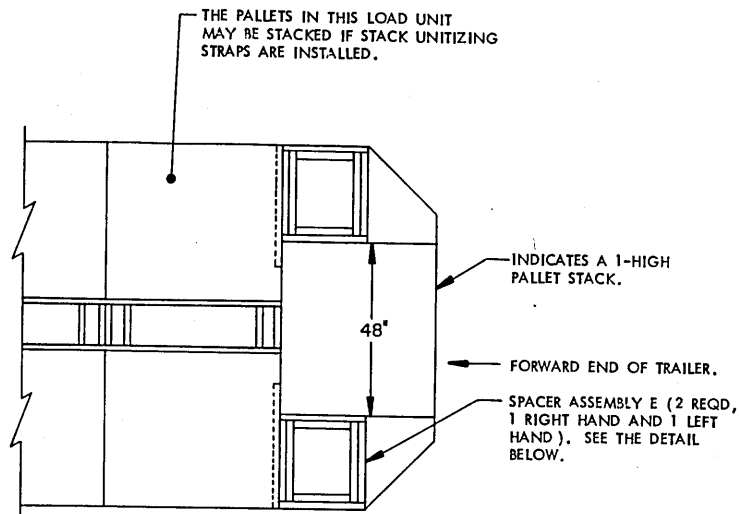
HEADER, 2" X 4" BY TRAILER WIDTH
MINUS 1/2" IN LENGTH (DOUBLED)
(1 REQD). POSITION AGAINST THE
REAR BLOCKING ASSEMBLY. NAIL
THE FIRST PIECE TO THE TRAILER FLOOR
W/15-10d NAILS (1 EVERY 6"). NAIL
THE SECOND PIECE TO THE FIRST IN A
LIKE MANNER AND TOENAIL TO THE
REAR BLOCKING ASSEMBLY W/4-10d NAILS.



NAILED-HEADER METHOD

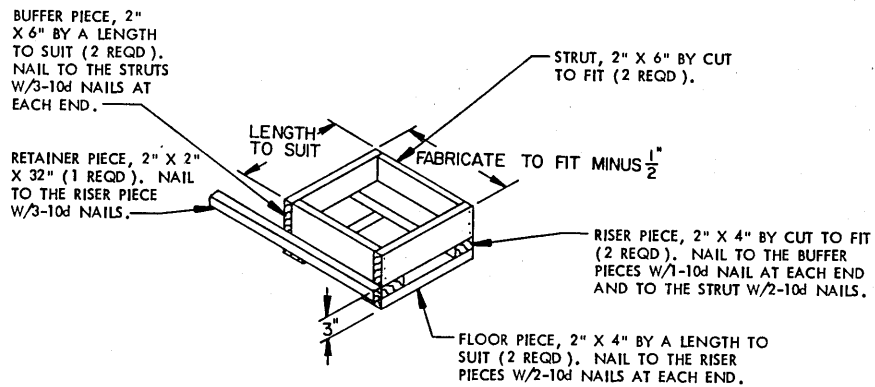
SPECIAL NOTES:

1. THE NAILED HEADER METHOD OF REAR BLOCKING DEPICTED ABOVE CAN ONLY BE USED IN TRAILERS HAVING A NAILABLE FLOOR AREA BETWEEN THE LADING AND THE METAL THRESHOLD, OR A THRESHOLD PLATE IF THE TRAILER IS SO EQUIPPED, OF AT LEAST FOURTEEN INCHES (14").
2. REAR BLOCKING ASSEMBLY "A" IS SHOWN FOR A TYPICAL INSTALLATION. CONSTRUCT THE ASSEMBLY USING 6" (MINIMUM) LONG STRUTS.
3. THE NAILED HEADER METHOD OF REAR BLOCKING IS ADEQUATE FOR THE RETENTION OF THE MAXIMUM WEIGHT LOAD.
4. THE NAILED HEADER METHOD, ALTHOUGH DESIGNED ESPECIALLY FOR TRAILERS HAVING ROLL UP TYPE DOORS, MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.



ALTERNATIVE FORWARD LOADING PATTERN

THIS PROCEDURE IS APPLICABLE TO THE LOADING OF ONE (1) PALLET UNIT IN THE FORWARD END OF A CONVENTIONAL VAN TRAILER HAVING LARGE ANGLED FRONT CORNERS (REF: 18"). THE PROCEDURES MAY ALSO, BE USED IN TRAILERS HAVING SQUARE CORNERS, OR ROUNDED FRONT CORNERS, OR ANGLED CORNERS OF ANOTHER SIZE.



SPACER ASSEMBLY E

THIS ASSEMBLY IS DESIGNED FOR LATERAL BRACING OF A SINGLE PALLET UNIT WHICH IS TURNED 90° FROM THE NORMAL LOADING ORIENTATION AND POSITIONED IN THE FRONT OF AN ANGLED CORNER CONVENTIONAL VAN TRAILER AS SHOWN IN THE "ALTERNATIVE LOADING PATTERN" VIEW ABOVE. RIGHT HAND AND LEFT HAND SPACER ASSEMBLIES ARE REQUIRED.